

Work Order ID 153322 - 2

Wednesday, November 16, 2016 9:17:14 AM

Page 1

Item ID: 647.1715

Revision ID:

Item Name: Plate

Start Date: 11/25/2016 Start Qty: 16.00

Required Date: 12/5/2016 Req'd Qty: 16.00

Reference:

Approvals: Process Plan: VS 21 3-2 Date: 11/11/16 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.1700	E

110

0.00

110

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg

Dwg Rev: E

Prog Rev: E

2-Deburr if necessary

0.29

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.03

Rush

Ship Dec 9th

DEC 16 2016 *153322*

Accept

N9000040100

Setup Start *NS1*

Stop *NS2*

DEC 16 2016

Split-2-

16

OK

Cust Item ID:

Customer:

16

Run Start *NR1*

Stop *NR2*

(16) de 11/11/20

(16) de 11/11/20

Work Order ID 153322

Wednesday, November 16, 2016 9:17:14 AM

153322

Page 2

Item ID: 647.1715 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Plate
Start Date: 11/25/2016 Start Qty: 16.00 ***16*** Cust Item ID:
Required Date: 12/5/2016 Req'd Qty: 16.00 ***16*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.05				<u>16</u>			DAS 30 9-85 DEC 08 2016
140 *140* Brake NC Brake NC	Form as per dwg Memo TRACE LINE FOR BENDING WITH DT9878 T1/ T2	0.02 0.29			DAS 30 9-85	<u>16</u>			DEC 14 2016
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.05				<u>16</u>			DA. 30 9-85 DEC 14 2016

Work Order ID 153322

Wednesday, November 16, 2016 9:17:14 AM

153322

Page 3

Item ID: 647.1715 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Plate
 Start Date: 11/25/2016 Start Qty: 16.00 ***16*** Cust Item ID:
 Required Date: 12/5/2016 Req'd Qty: 16.00 ***16*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1 Memo Issue P/O to ATG : <u>34644</u> 1- Black Anodize as per Dwg, SEE NOTE #3 2- PRIME AS PER DWG, SEE NOTE #3 Certification of Comformity is required	0.00 479.98				<u>16</u>	<u>DEC 1 5 2016</u>	<u>DAS 13 9-89</u>	
170 *170* Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs Memo	0.00 0.05				<u>8X</u>	<u>SP17-01-9.</u> <u>SP/6-12-15</u>		
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo <u>1.5 mils primer</u>	0.00 0.05				<u>8</u>		<u>DAS 38 9-89</u> <u>JAN 12 2017</u>	

Work Order ID 153322

153322

Page 4

Wednesday, November 16, 2016 9:17:14 AM

Item ID: 647.1715 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Plate
 Start Date: 11/25/2016 Start Qty: 16.00 *16* Cust Item ID:
 Required Date: 12/5/2016 Req'd Qty: 16.00 *16* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Identify as per dwg & Stock Location: <u>CCOM</u>	0.00				8			
210		0.03					JAS 6 -89	JAN 17 2017	
Packaging	Memo								
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								
220	QC21- Final Inspection - Work Order Release	0.00							
220		0.27							
QC	Memo								
Quality Control									

17/01/18 JF
 17-1-17

Picklist Print

Wednesday, November 16, 2016 9:17:24 AM

Page 1

Work Order ID: 153322

153322

Parent Item: 647.1715

647 1715

Parent Item Name: Plate

Start Date: 11/25/2016

Required Date: 12/5/2016

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP REV:A NEW ISSUE 13-07-18 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6S.160		Purchased		No			sf	39.0000		18.45895			

M7075T6S 160

7075-T6 Sheet .160

on 11/11/20

Location

Loc Qty

Loc Code

MAT019

39

m127614

6.4

m133617

11.3

m135612

21.3

136251

4.3

12

FIRST ARTICLE INSPECTION CHECKLIST

[illegible]

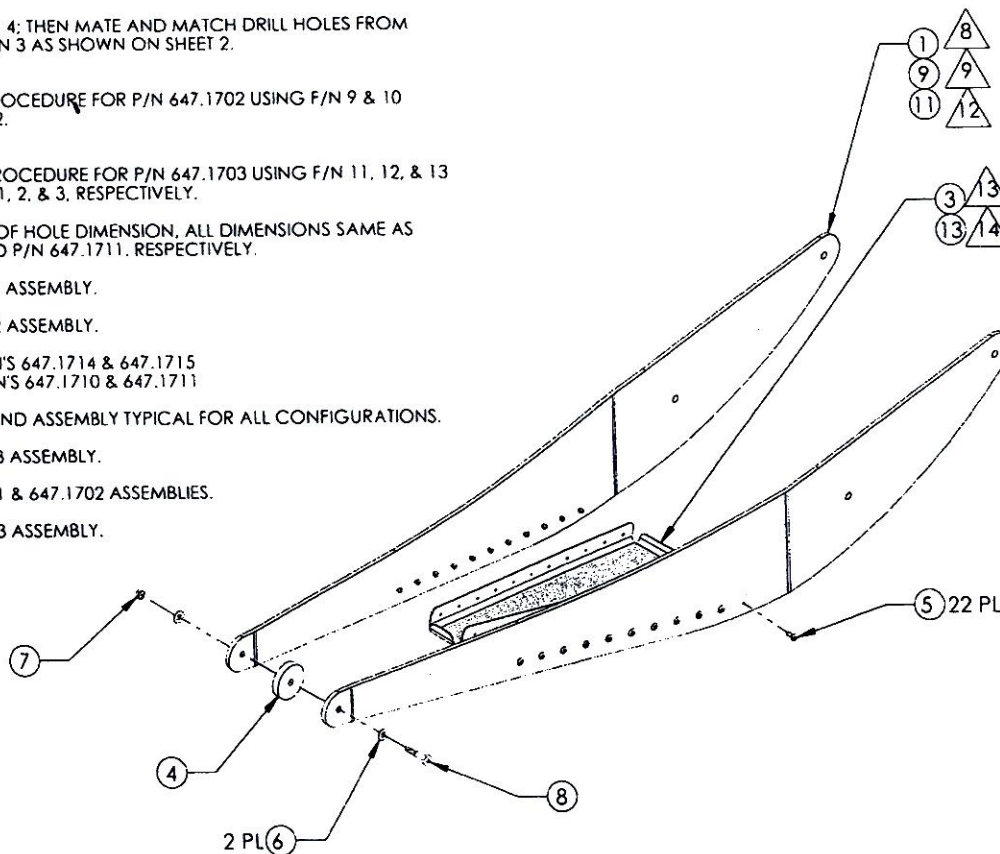
Measured by: 			Audited by: 			Preliminary Approval:		
Date: 16/12/20			Date: DEC 08 2016			Date:		

Rev	Date	Change	Revised by	Approved
A	14.06.26	New Issue	KJ 	

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NOTES:

- 1 MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-250/12.
- 2 MATERIAL: 6061-T6 ALUMINUM BAR IAW AMS-QQ-A-250/11.
- 3 FINISH IAW MPP-172, SECTIONS 2.1, 3.1, & 4.2.
4. DEBURR AND BREAK ALL SHARP EDGES.
5. IDENTIFY IAW MPP-120.
- 6 P/N 647.1701:
CLAMP F/N 1, 2, & 4; THEN MATE AND MATCH DRILL HOLES FROM F/N 1 & 2 ONTO F/N 3 AS SHOWN ON SHEET 2.
- P/N 647.1702:
FOLLOW SAME PROCEDURE FOR P/N 647.1702 USING F/N 9 & 10 IN PLACE OF 1 & 2.
- P/N 647.1703:
FOLLOW SAME PROCEDURE FOR P/N 647.1703 USING F/N 11, 12, & 13 IN PLACE OF F/N 1, 2, & 3, RESPECTIVELY.
- 7 WITH EXCEPTION OF HOLE DIMENSION, ALL DIMENSIONS SAME AS P/N 647.1710 AND P/N 647.1711, RESPECTIVELY.
- 8 FOR P/N 647.1701 ASSEMBLY.
- 9 FOR P/N 647.1702 ASSEMBLY.
- 10 .323" DIA FOR P/N'S 647.1714 & 647.1715
.257" DIA FOR P/N'S 647.1710 & 647.1711
- 11 RIVET SPACING AND ASSEMBLY TYPICAL FOR ALL CONFIGURATIONS.
- 12 FOR P/N 647.1703 ASSEMBLY.
- 13 FOR P/N 647.1701 & 647.1702 ASSEMBLIES.
- 14 FOR P/N 647.1703 ASSEMBLY.



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: P27		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECN'S 02937 & 03921	06/07/13	P. BRAVO
B	INCORPORATED ECN 03670	07/03/13	P. BRAVO
C	INCORPORATED ECN 04058	08/14/13	P. BRAVO
D	INCORPORATED ECN'S 04679, 04702 & 04964	05/29/15	P. BRAVO
E	INCORPORATED ECN 05357	03/21/16	P. BRAVO

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 647.1715

1		13	647.1718	GUSSET		
1		12	647.1717	PLATE		
1		11	647.1716	PLATE		
1		10	647.1715	PLATE		
1		9	647.1714	PLATE		
1	1	8	601.1622	SCREW	MS27039-1-14	
1	1	7	601.2943	LOCKNUT	MS21042-3	
2	2	6	601.1607	WASHER	NAS1149F0332P	
22	22	5	601.1915	RIVET	CR3213-4-4	
1	1	4	647.1713	SPACER		
1	1	3	647.1712	GUSSET		
1	1	2	647.1711	PLATE		
		1	647.1710	PLATE		
X			647.1703	SKID DEFLECTOR ASSY		
X			647.1702	SKID DEFLECTOR ASSY		
	X		647.1701	SKID DEFLECTOR ASSY		

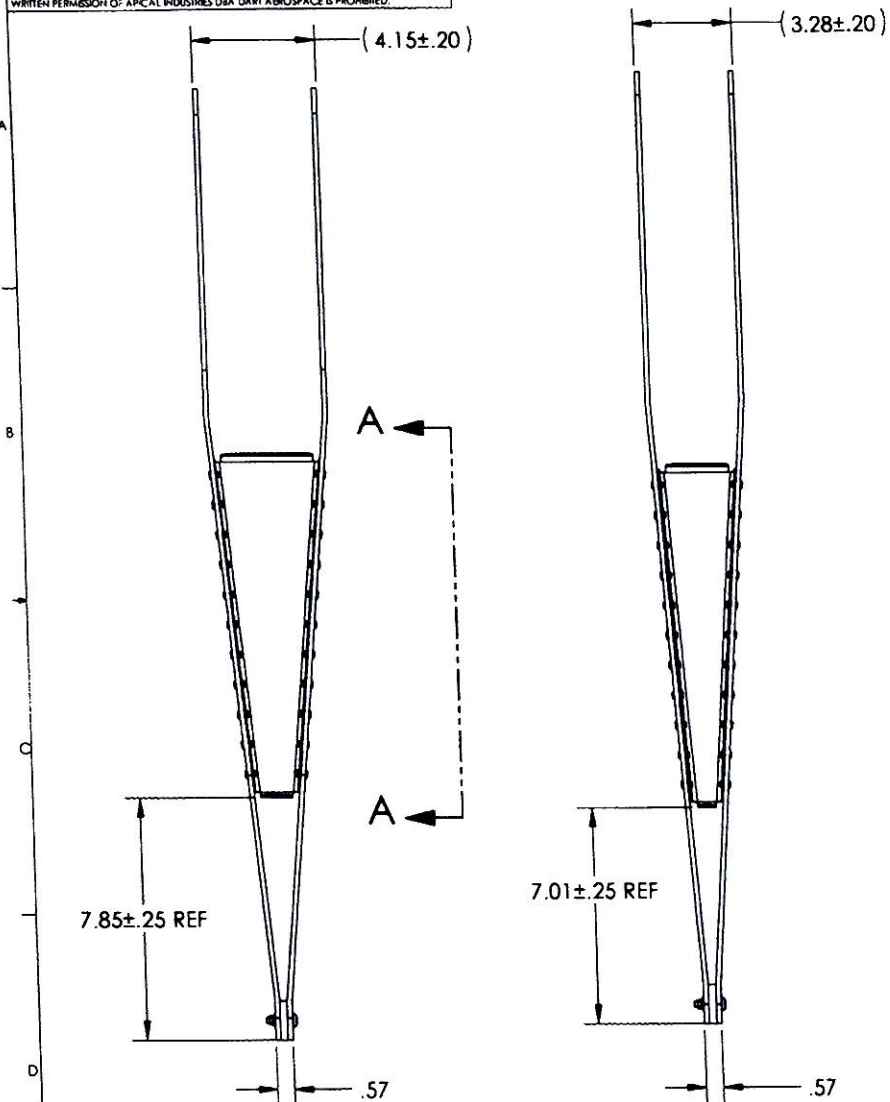
QTY		PARTS LIST	
NEXT ASSY IS:		ORIGINAL DATE	CR-03-09
647.1300		DRAWN BY	SURTE A
		CHECKED	P. BRAVO
		APPROVED	
		DATE	
		SCALE	
		UNLESS OTHERWISE SPECIFIED	
		DIMENSIONS ARE IN INCHES	
		TOLERANCES ARE:	
		2 PLACE DECIMALS ± .01	
		3 PLACE DECIMALS ± .001	
		ANGLES ± .1°	
		SCALE	NONE
		SHEET	1 OF 7

DART 3030 ENTERPRISE CT.
AEROSPACE VISTA, CA 92081
APICAL INDUSTRIES, INC. (760) 724-5300
DBA DART AEROSPACE

SKID DEFLECTOR ASSY

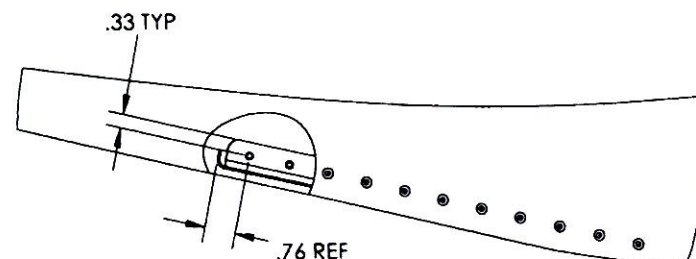
SITE: CAAGR CODE: ENVO: NO: REV: E
B 07M16 647.1700
SCALE: NONE SHEET: 1 OF 7

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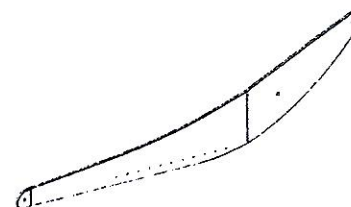
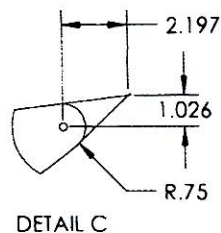
647.1701 & 647.1702

647.1703



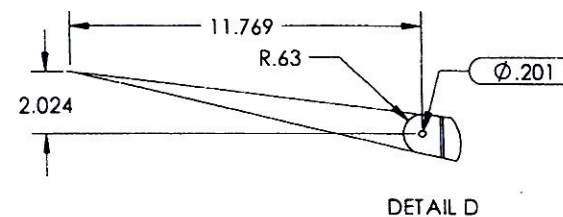
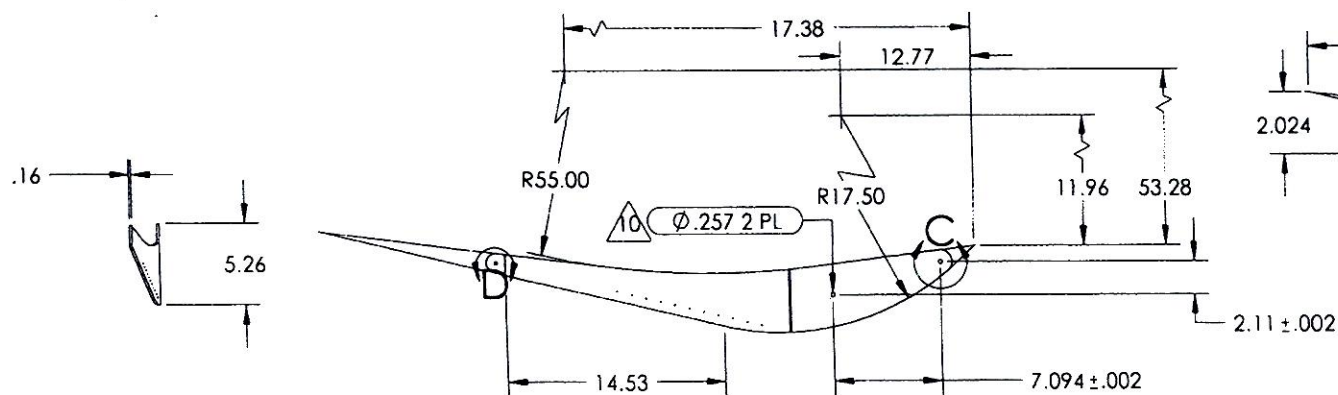
SECTION AA
TYP ALL CONFIGURATIONS

ORIGINAL DATE 08-03-09		DART 3030 ENTERPRISE CT., SUITE A AEROSPACE VISTA, CA 92081 APICAL INDUSTRIES, INC. DBA DART AEROSPACE (760) 724-5300	
DRAWN BY S. HUPP	CHECKED BY P. BRAYO		
DRAWING APPROVAL P. BRAYO		SKID DEFLECTOR ASSY	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS 1.00 3 PLACE DECIMALS 1.00 ANGLES 1/2°		REV. E	SHEET 2 OF 7



Technical drawing of a mechanical part. A feature control frame is shown, consisting of a triangle containing the number 10, followed by a rounded rectangle containing the text $\varnothing .323 \pm .01$. A leader line points from this frame to a hole on the part.

647.1714 SHOWN
647.1715 OPPOSITE 



ORIGINAL DATE 08-20-78
DRAWN BY C. HICKEY
CHECKED BY P. BRAYO
DRAWING APPROVAL
P. BRAYO
CONTRACT # 10

DART
AEROSPACE
AF CAL. INDUSTRIES INC.
CROFT DART AEROSPACE

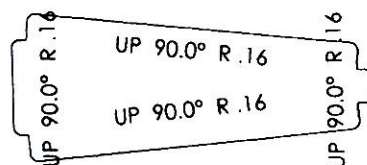
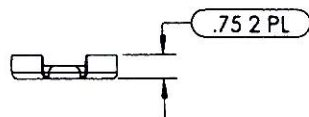
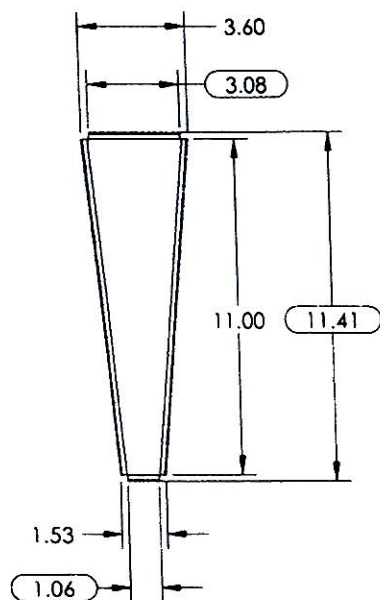
3030 ENTERPRISE CIRCLE
SUITE A
VISTA, CA 92081
(760)-774-5300

SKID DEFLECTOR ASSY

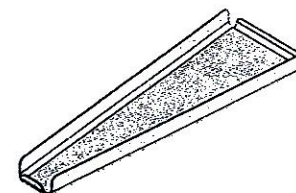
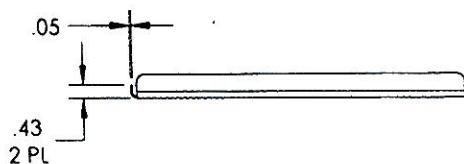
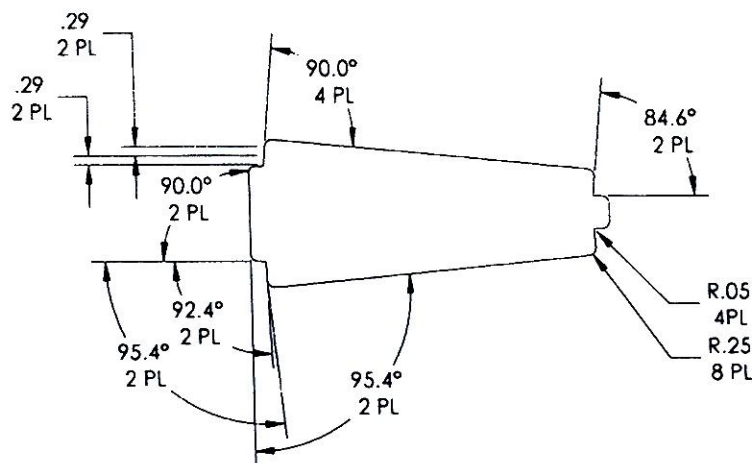
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
20 THICKNESS
2 PLACE DECIMALS
3 PLACE DECIMALS 1.001
3 PLACE DECIMALS 1.001
ANGLES 5

SHEET 072426 DWG NO. 647.1700
SCALE NONE SHEET 3 OF 7

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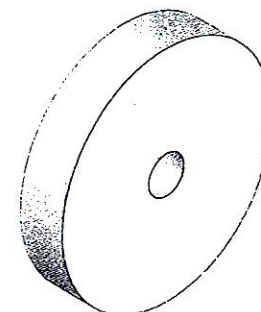
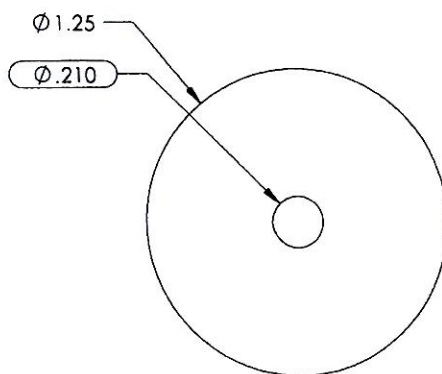
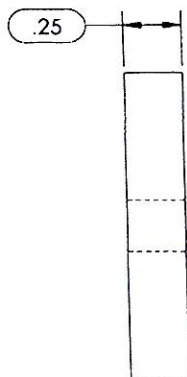
FLAT PATTERN



647.1712

ORIGINAL DATE	DESIGN	3030 ENTERPRISE CT., SUITE A
DRAWN BY	CHECKED	VISTA, CA 92081
BY	P. BRAVO	(760) 724-5300
DRAWING APPROVAL	APICAL INDUSTRIES, INC.	
BY	APICAL INDUSTRIES, INC.	
DATE	647.1700	
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED		
DIMENSIONS ARE IN INCHES		
TOLERANCES ARE:		
2 PLACE DECIMALS ± .01		
3 PLACE DECIMALS ± .005		
ANGLES ± .5°		
SCALE NONE	SHEET 4 OF 7	

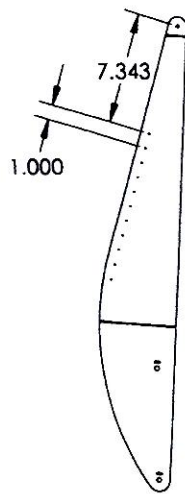
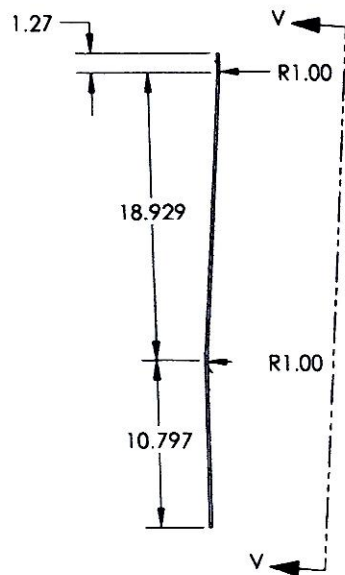
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



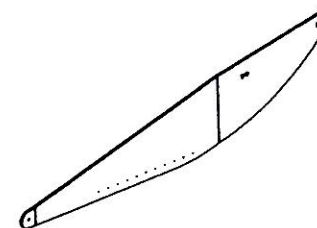
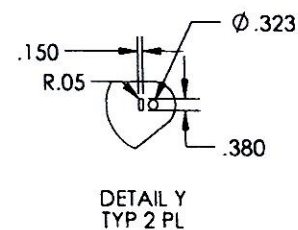
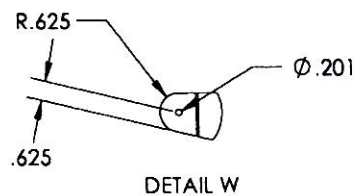
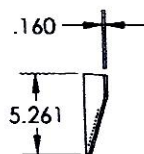
647.1713

ORIGINAL DATE: 08-01-07		DART 303C ENTERPRISE CT.	
DRAWN BY: C-HECKER		SUITE A	
1. HUB		VISTA, CA 92081	
DRAWING APPROVAL:		APICAL INDUSTRIES INC.	
P. BEAVO		(760)-724-5300	
C. BEAVO		3000 DART AEROSPACE	
CONTRACT NO:		SKID DEFLECTOR ASSY	
UNLESS OTHERWISE SPECIFIED		SIZE: CAGE CODE: DWG NO: REV:	
DIMENSIONS ARE IN INCHES		B: 07M16 647.1700 E	
TOLERANCES ARE:		SCALE: NONE SHEET: 5 OF 7	
3 PLACES DECIMALS: .01			
2 PLACES DECIMALS: .005			
ANGLES: 1°			

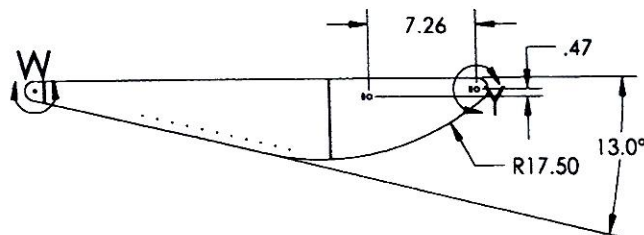
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APCAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APCAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



VIEW V-V



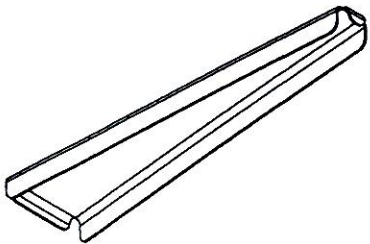
647.1716 SHOWN
647.1717 OPPOSITE



ORIGINAL DATE 08-05-09		DART 3030 ENTERPRISE CT., AEROSPACE SUITE A VISTA, CA 92081 APCA INDUSTRIES INC. (760)-724-5300 DBA DART AEROSPACE	
DRAWN BY J. HUFF	CHECKED P. BRAYO		
DRAWING APPROVAL P. BRAYO			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .001 ANGLES ± .5°		SKID DEFLECTOR ASSY STE CAGE CODE DWG NO B 07ME6 647.1700 SCALE NONE SHEET 6 OF 7	
		REV E	

Technical drawing of a tapered mechanical part. The drawing shows a side view of a tapered body with a circular cross-section at the top. Dimensions are indicated as follows:

- Top circular cross-section diameter: 2.60
- Bottom circular cross-section diameter: 2.08
- Height of the tapered body: 11.00
- Radius of the top circular cross-section: 1.30 (indicated by a dimension line from the center to the edge)
- Radius of the bottom circular cross-section: 1.04 (indicated by a dimension line from the center to the edge)
- Length of the tapered body: 11.41 (indicated by a dimension line along the slanted side)
- Length of the top circular cross-section: 1.04 (indicated by a dimension line across the top)
- Length of the bottom circular cross-section: 1.04 (indicated by a dimension line across the bottom)
- Length of the tapered body: 11.00 (indicated by a dimension line along the vertical axis)
- Length of the top circular cross-section: 1.04 (indicated by a dimension line across the top)
- Length of the bottom circular cross-section: 1.04 (indicated by a dimension line across the bottom)
- Length of the tapered body: 11.00 (indicated by a dimension line along the vertical axis)
- Length of the top circular cross-section: 1.04 (indicated by a dimension line across the top)
- Length of the bottom circular cross-section: 1.04 (indicated by a dimension line across the bottom)

[illegible]

**Purchase Order ID PO34644**

Purchase Order Date 12/15/2016
PO Print Date 12/21/2016

Page Number 1 of 7

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FCA – (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	153322	647.1715 PLATE REV. E	12/16/2016 Yes 12/16/2016		8.00	\$30.25	\$242.00
		FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377J TYPE I CLASS N					
		PARTS ARE RUSH, PLEASE ADVISE WHEN READY					
	153322		12/22/2016		8.00	\$24.00	\$192.00
			12/22/2016				
						Line Total:	\$434.00
2	151652	646.3012 LOWER GUIDE REV. N/C	12/22/2016 Yes 12/22/2016		12.00	\$19.90	\$238.80
		FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-PRF-23377J TYPE I CLASS N					
						Line Total:	\$238.80

PO Instructions: PRIMER IS SUPPLIED BY DART

Note:

12/21/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912764

Date: 06-Jan-17

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
8 ea	Part: 647.1715 Plate Black Hard Anodize per MIL-A-8626F, Type III, Class 2 Prime per MIL-PRF-23377J, Type I, Class N Job: 20500	Rev: E Line: 1	SPH-01-9.
DATE: 06 Jan 2017			
CERTIFIED SIGNATURE: [Signature]			
RECEIVER SIGNATURE: _____			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
CERTIFICATE OF CONFORMANCE			
A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.			
MADE IN CANADA.			